A. I. A. FILE NUMBER 12a3

TRUSCON STEELDECK ROOFS

INSULATED AND WATERPROOFED

TRUSCON STEEL COMPANY — YOUNGSTOWN, O.

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OCTOBER, 1936

TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO

TRUSCON FERROBORD STEELDECK ROOF

INSULATED AND WATERPROOFED

A complete catalog giving technical data, construction and erection details and specifications of Truscon Ferrobord Steeldeck and accessories based on approved standards of steeldeck construction.

All data for Truscon Ferrobord are based on known facts and fundamental principles upon which a building design is developed.

THE IMPORTANCE OF THE RIGHT ROOF

The right roof must successfully protect against the elements—wind, water and fire. It must be durable in order to safeguard the initial investment. It must be economical through lightness of weight and minimum of expense. When choosing a roof design, occupancy conditions, heating, ventilation, humidity and geographical location must be considered. The right roof must be practicable in design and purpose.

Steeldeck roofs, insulated to any required degree and waterproofed, are of a broad and general usefulness. They meet most requirements and conditions. They are particularly adaptable to industrial buildings, gymnasiums, auditoriums, public halls and theaters.

Steeldeck has the advantage of being light in weight, permanent and fire resistant. Steeldeck, covered with insulation and waterproofing weighs approximately 5 pounds per square foot.

Truscon Steeldeck, being made of copper alloy steel is, in itself, highly rust resistant, and, with normal painting maintenance will have a practically unlimited lifetime. Steeldeck is not recommended for buildings in which a highly corrosive condition exists, unless it is painted with a special protective paint.

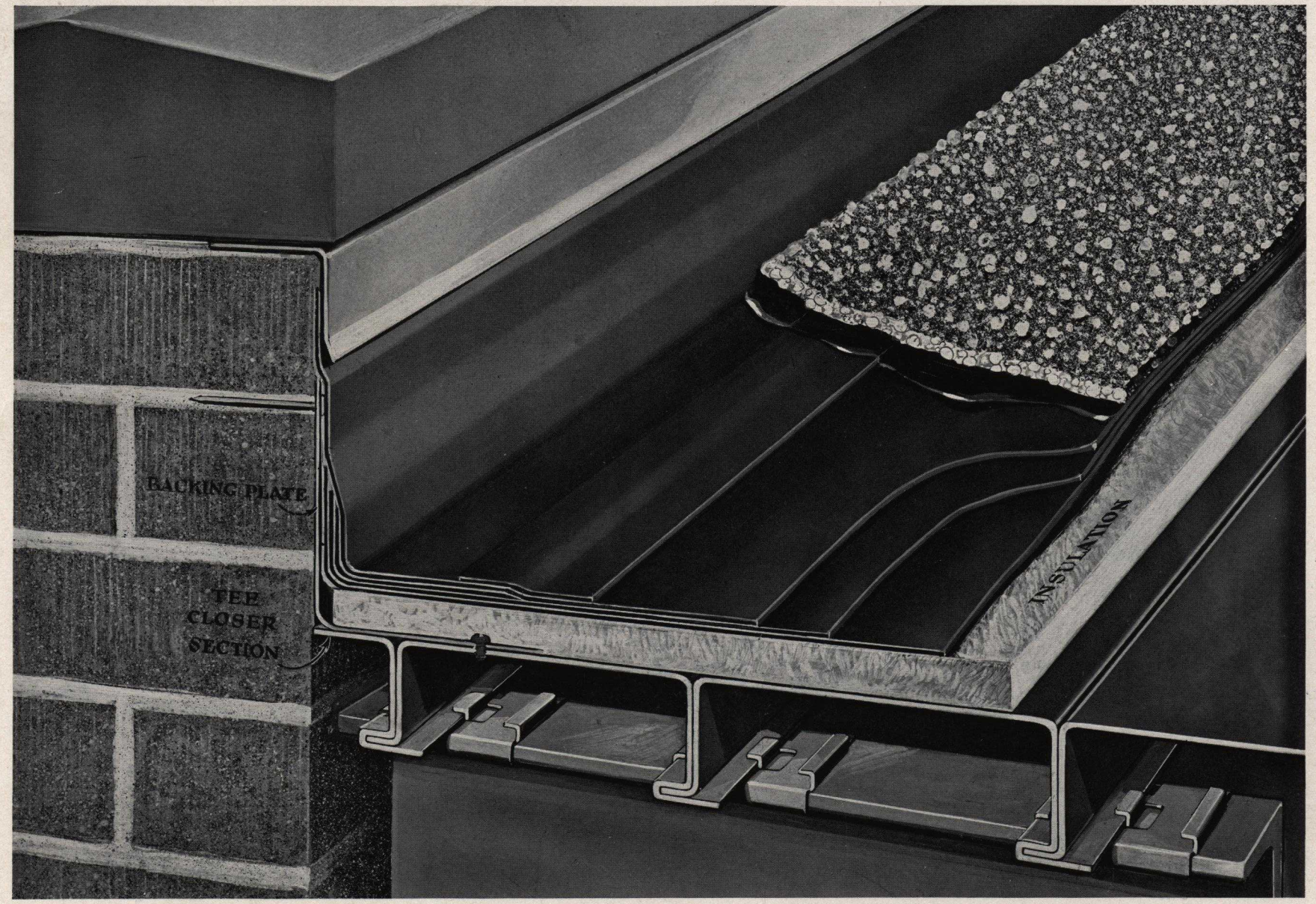
A steel roof protects the building by retarding the spread of fire, resulting in low insurance rates. It is a perfect insulator against lightning.

Steeldeck, covered with the proper thickness of insulating board and built-up roofing reduces heat loss. The consequent saving in fuel, together with the lower initial cost of the steeldeck and of heating equipment, effect a very material economy.

It is of especial value to the builder that after rain or snow Steeldeck can be dried easily and quickly for the application of insulation and built-up roofing, thus preventing delay in construction progress.

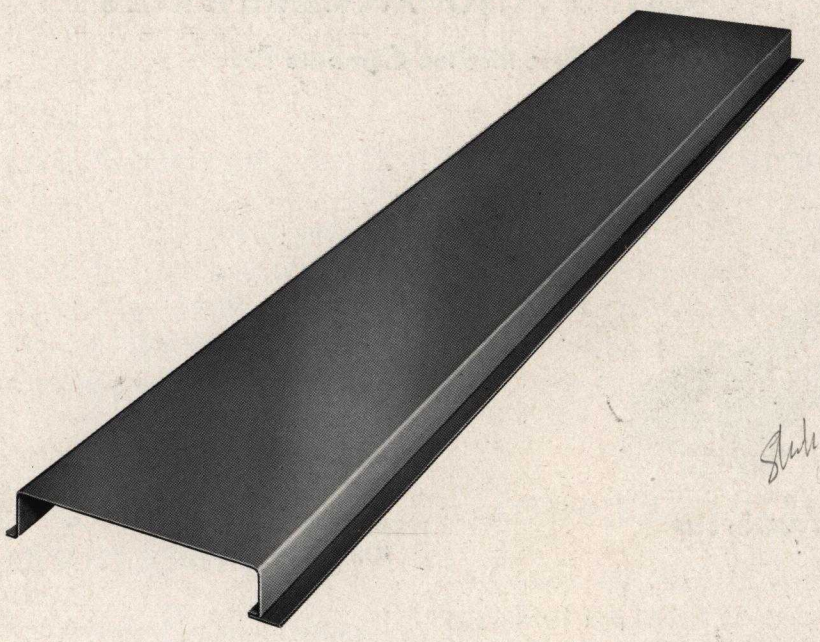
TRUSCON STEEL COMPANY » YOUNGSTOWN, O.

Engineering and Sales Offices in all Principal Cities



SECTION SHOWING FERROBORD ROOFDECK, INSULATION AND BUILT-UP ROOFING

TRUSCON FERROBORD STEELDECK



The Ferrobord type of Truscon Steeldeck is a roof so formed that each sheet firmly interlocks with the adjoining sheets to form a continuous deck over the entire roof.

Truscon Ferrobord is formed of 18 or 20 gauge copper bearing or electro-galvanized steel. Each sheet is 6″ wide with vertical flanges along the sides 1½″ deep.

Ferrobord is applied directly to the roof supporting steel and is securely fastened to the structural members either by clipping or by welding each vertical rib to the purlins.

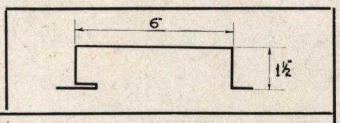
Abutting ends of sheets are securely joined and stiffened by a butt joint clip, presenting a smooth surface to which the insulation and built-up roofing are applied.

Ferrobord is adaptable to flat or pitched roofs or curved roofs, having a minimum radius of 60′.

The fabricated sheets, unless electro-galvanized, receive a shop coat of gray paint. Electro-galvanized sheets are shipped unpainted.

CURVING FERROBORD. Ferrobord may be curved to a minimum radius of 60′-0″ in the shop or 115′-0″ in the field.

CROSS SECTION AND PHYSICAL PROPERTIES



Gauge of Metal	20	18
Weight per sq. ft. of Deck	2.73	3.62
Moment of Inertia per foot of Width	.202	.263
Section Modulus per foot of Width	.184	.240

Table of Safe Loads in Pounds Per Square Foot (Total dead and live)

SPAN	4′-0″	4′-6″	5′-0″	5′-6″	6′-0″	6′-6″	7′-0″	7′-6″	8′-0″	8′-6″	9′-0″
20 gauge—1½	120	95	80	65	55	47	40	35	30	25	
18 gauge—1½	155	120	100	85	70	60	50	45	40	35	25

CLIPS AND ACCESSORIES

Described on Opposite Page

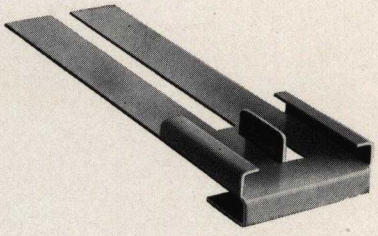


Fig. 1
FERROBORD PURLIN CLIP

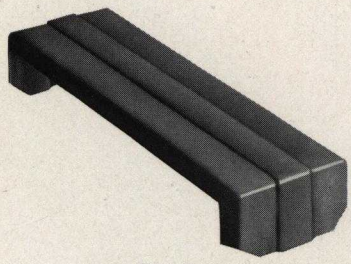


Fig. 2
FERROBORD BUTT
JOINT CLIP

Fig. 3
INSULATION
CLEAT

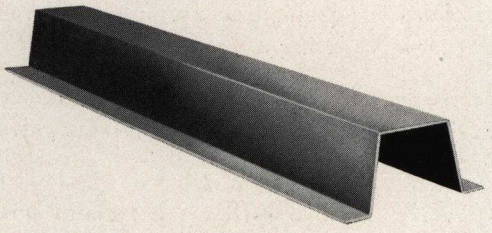


Fig. 4
GUTTER STOP

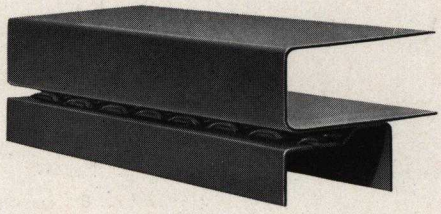


Fig. 5
CORNICE AND NAILER BEAD

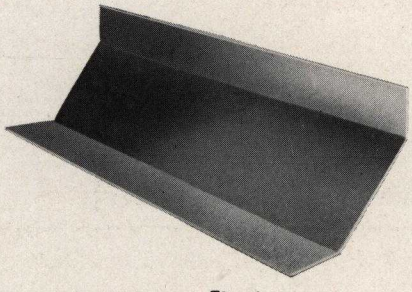


Fig. 6
BACKING PLATE FOR FLASHING

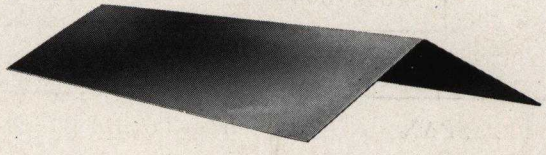


Fig. 7
RIDGE PLATE

CLIPS AND ACCESSORIES

Illustrated on Opposite Page

Fig. 1
FERROBORD PURLIN CLIP

Purlin Clips are fabricated of heavy gauge steel and perform the dual function of clipping the interlocked flanges firmly together and at the same time holding the Ferrobord securely to the supporting roof steel.

Fig. 2
FERROBORD BUTT JOINT CLIP

The Butt Joint Clip holds the Ferrobord sheets in line, and joints the ends of the two abutting sheets to form a smooth, continuous, unbroken surface of roofdeck.

Fig. 3
INSULATION CLEAT

On sloping roofs, with a pitch greater than 3″ in 12″ it becomes necessary to fasten mechanically the insulation to the roofdeck, to prevent this material from slipping during hot weather. On Ferrobord, insulation cleats are driven between the ribs of the deck (during erection) with the prongs projecting above the deck surface. The small prongs on the bottom of the cleat are bent into the Ferrobord flange to hold the clip in place. One clip is used for each four sq. ft. of roof area. The insulation is forced down over this standing prong, the point of the prong being hammered over to clinch the insulation securely to the roof deck. The first ply of the built-up roofing is fastened to the insulation by a soft copper nail, the point of which is turned when driven against the steel deck.

Fig. 4
GUTTER STOP

The Gutter Stop is used along the eaves in place of a hanging gutter. The gutter stop is fastened to the roof deck at a slight angle with the eave line, thus forming a drain to a low point of the gutter stop.

Fig. 5
CORNICE AND NAILER BEAD

The Cornice and Nailer Bead is used to close the ends of the sheets at the eave and gable overhang. When smooth face roofing is specified it becomes necessary to fasten the edges of the roofing felts firmly in place to insure a permanent construction. The built-up roofing is turned down over the end of the cornice, and the roofing nails are driven through the felts into the nailer bead along the lower edge of the cornice.

Fig. 6
BACKING PLATE

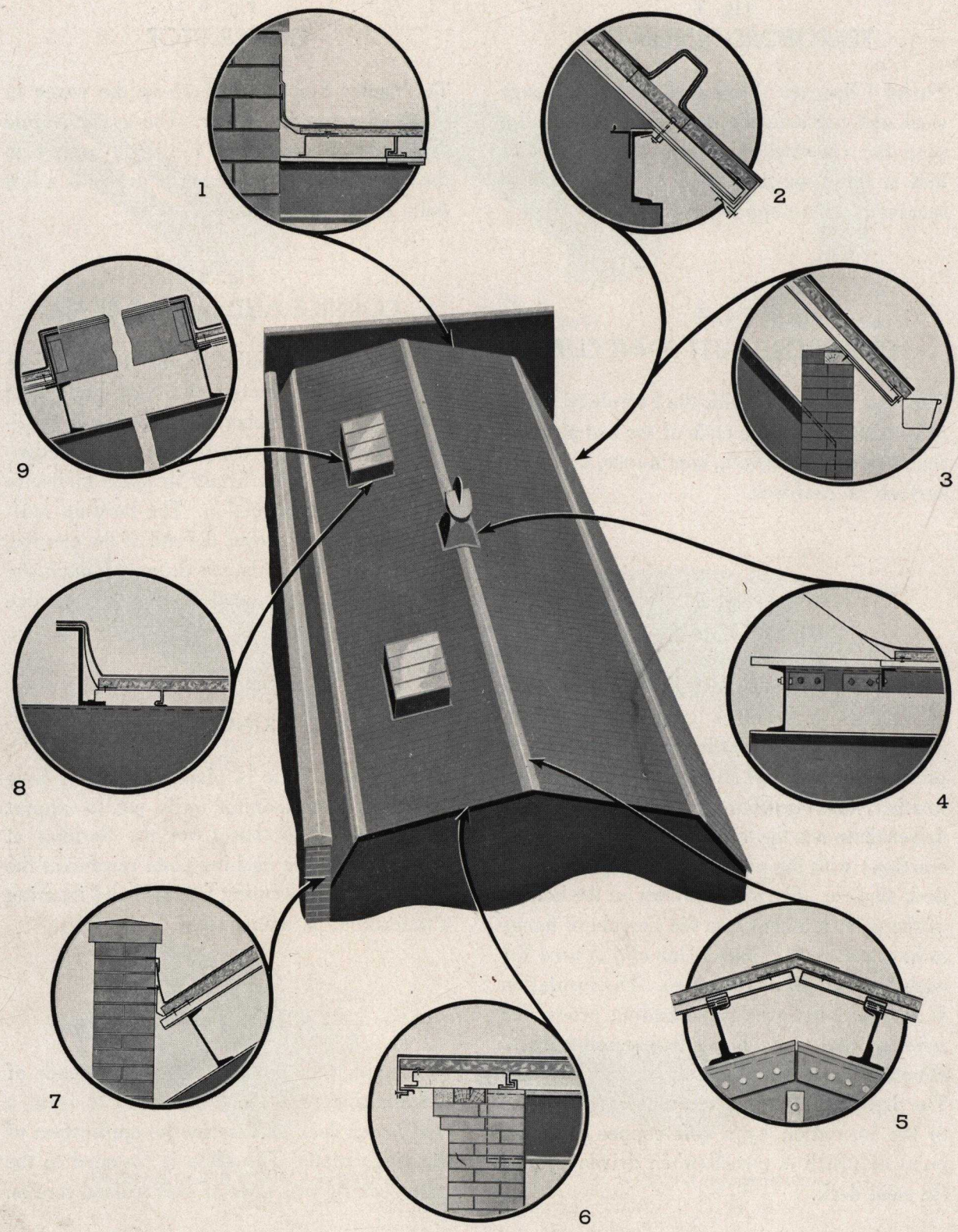
The Backing Plate is placed along the base of the parapets, monitor walls, etc. to support the roofing felts that form the flashing at these points. The backing plate reinforces the flashing felt, preventing fracture and insuring a watertight, permanent seal.

Fig. 7
RIDGE PLATE

At the ridge the opening between the ends of the abutting roof sheets is closed to form a continuous deck surface by the application of the ridge plate. The plate is fastened to the roof deck by two rows of sherardized screws.

CONSTRUCTION DETAILS

Described on Opposite Page



CONSTRUCTION DETAILS

Illustrated on Opposite Page

1. SECTION AT PARAPET WALL:

(Roof Sheets Parallel to Wall)

Showing the Backing Plate held in place by one row of metal screws at the roofdeck and one row of masonry nails at the parapet wall. The "Backing" supports the roofing during and after application.

2. OVERHANGING EAVE WITH GUTTER STOP:

Gutter Stops may be used set on a slight bevel with the edge of the roof for drainage pitch.

3. SECTION THROUGH EAVE WITH GUTTER:

Note that the gutter may be attached to the deck with metal screws BEFORE application of insulation and built-up roofing.

4. SECTION THROUGH VENTILATOR BASE:

Note that an angle frame must be furnished to support the ends of the deck at the ventilator.

5. SECTION THROUGH RIDGE:

At this point the open ends of the two adjoining sheets forming the ridge are closed by applying a continuous ridge plate held in place by rows of metal screws.

6. SECTION AT OVERHANGS:

Showing the Nailer Bead and Closing Plate. The Nailer Bead is fastened with metal screws to the roofdeck and the Closing Plate extends from the Nailer Bead to the wood nailer or steel girt located in the building wall. The felt cap of the roofing is nailed with roofing nails to the Nailer Bead.

7. SECTION AT PARAPET WALL:

(Roof Sheets perpendicular to Wall)

Showing the Backing Plate held in place by one row of metal screws at the roofdeck and one row of masonry nails at the parapet wall. The "Backing" supports the roofing during and after application.

8 and 9. SKYLIGHT CURB:

Showing standard skylight curbs used with channel or I-beam purlins. Note that when channel purlins are used, an angle is added to the low purlin to which to bolt the skylight curb. Backing Plate is used for full perimeter of skylight.

SPECIFICATIONS

ROOFDECK:

1. Roofdeck shall be of the Ferrobord type as manufactured and fabricated by the Truscon Steel Company, Youngstown, Ohio, and shall be so proportioned that the sum of the dead and live loads shall not cause tension stress per net section, in excess of a unit stress of 18,000 pounds per square inch.

2. Sheets shall be copper-bearing steel in accordance with No. .. gage U. S. Standard specifications.

3. No substitution of Roofdeck shall be made unless authorized by architects and engineers.

4. Sections formed in the sheets shall provide rigidity and strength for use with purlins spaced not to exceed....feet,....inches for supporting a live load of....pounds per square foot. Maximum allowable deflection, 1/250 of the span when uniformly distributed and concentrated loads are considered.

5. The deck shall span over at least three purlins and be secured to each purlin by suitable purlin clips spaced every six inches. The end joints, if any, shall be securely fastened together by means of butt clips.

6. All eaves, gables, parapet walls, valleys, monitors and skylight curbs shall be reinforced with steel sheet sections and sealed as per standard details, using accessories as furnished by the Truscon Steel Company.

7. All material, including clips and fasteners, shall have one shop coat of Truscon Bar-OX paint applied immediately after fabrication.

INSULATION: (Flat and Pitched Roofs)

1. The roofdeck shall be insulated with..... .....as manufactured by ....., or equal to a thickness of .....inches. Approximately..... pounds per square of adhesive waterproofing material, which will retain its ductility under all conditions, shall be used to insure a perfect bond between the insulation and roofdeck. When roofdeck is pitched more than 3″ in 12″, the insulation material shall be held securely to the roofdeck by means of insulation cleats. The cleats shall be driven into the web of the interlocking sheets of the roofdeck, without puncturing the sheets. One cleat shall be used for each four square feet of roof area.

2. To assure perfect bond, no more area shall be mopped than will permit the laying of insulation while the waterproofing material is hot. Insulation shall be fitted neatly around projections, such as vent pipes, flag poles, etc., at pent houses, walls, skylights, etc., and all joints sealed with waterproofing material.

3. Care shall be taken to protect insulation from moisture prior to laying and during installation. No more insulation shall be laid than can be fully waterproofed and sealed at edges of sheets during one day's run.

4. Insulation shall be laid in accordance with the manufacturer's instructions.

BUILT-UP ROOFING: (Smooth Surface)

1. On the insulation there shall be applied....ply built-up roofing, laid in accordance with the manufacturer's specifications.

2. At the eave of the building, the built-up roofing shall be carried over the edge and securely fastened to eave strip with roofer's nails driven in slot provided for that purpose, and of sufficient spacing to hold the waterproofing felt securely in place and avoid any possibility of its working loose.

3. In finishing the job, care must be exercised to cut the built-up roofing even with the lower edge of eave strip, in order to present a workmanlike job and as a protection against damage.

4. On pitched roof construction, the roofing felt applied directly on the roof insulation, shall be nailed in place with "duck's bill" copper nails of sufficient length to "turn up" when striking the Roofdeck and clinch the roofing felt firmly in place.

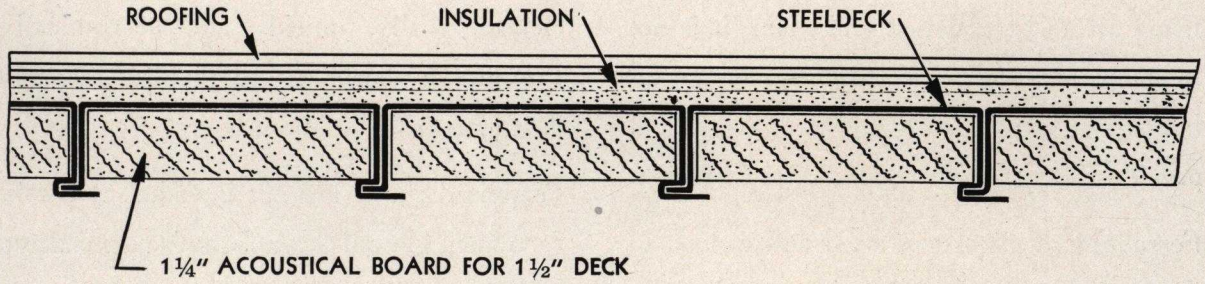
BUILT-UP ROOFING: (Rough Surface)

1. On the insulation there shall be applied....ply built-up roofing, laid in accordance with the manufacturer's specifications.

2. For each one hundred square feet of completed roof, there shall be used not less than ....pounds of tar and not less than....pounds of gravel, or ....pounds of slag, from one-fourth (1/4″) to five-eighths (5/8″) inch in size. The gravel and slag shall be dry and free from dirt.

3. The eaves shall be properly finished off with metal gravel stops.

TRUSCON *Ferrocoustic* ROOFDECK



Standard Truscon Ferrobord, 6 inches wide, is used for the roofdeck. Ferrobord is made from 18 to 20 gauge steel sheets having a double flanged rib on one edge which interlocks with a single flanged rib on the adjoining sheet to form structural supporting members at 6 inch intervals. These ribs are 1½" deep. The surface forms a smooth, tight deck which is unequalled as a base over which to lay insulation and waterproofing.

The acoustical treatment consists of panels of any commercial acoustical board which are made to fit snugly between the ribs of the Ferrobord. When erected, the flanges of the ribs form a positive mechanical support which holds the acoustical board firmly in place. Because of its design, Ferrocoustic is fastened to the purlins *after* the acoustical board is inserted. Little extra labor is involved over that required for ordinary roofdeck.

The Steeldeck construction with the Ferrocoustic treatment also makes an excellent, light-weight, quiet floor construction of minimum thickness when surfaced with cement, magnesite, rubber tile, linoleum or other materials, for its structural design enables it to carry unusually heavy loads. The acoustical panels form the ceiling of the room below and serve as a sound-proofing by absorbing the noises from above.

Welding Ferrocoustic Roofdeck to Roof Supports

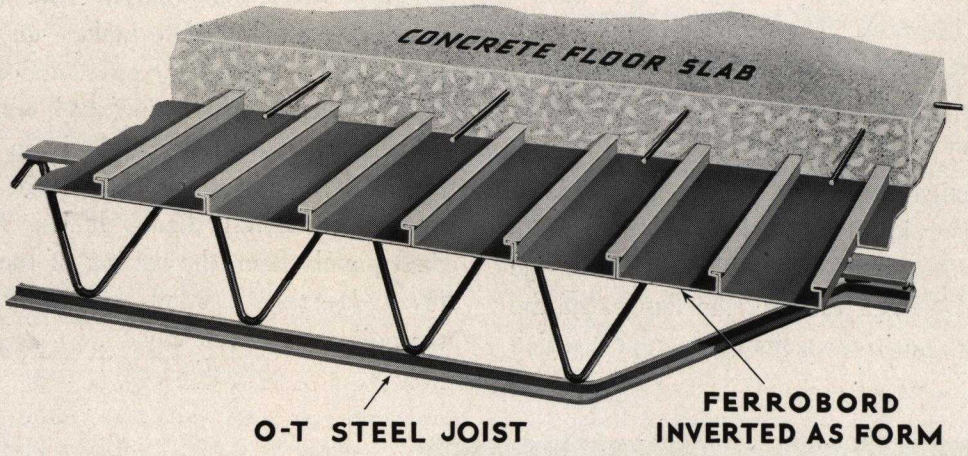
Underside of Ferrocoustic Roof Construction

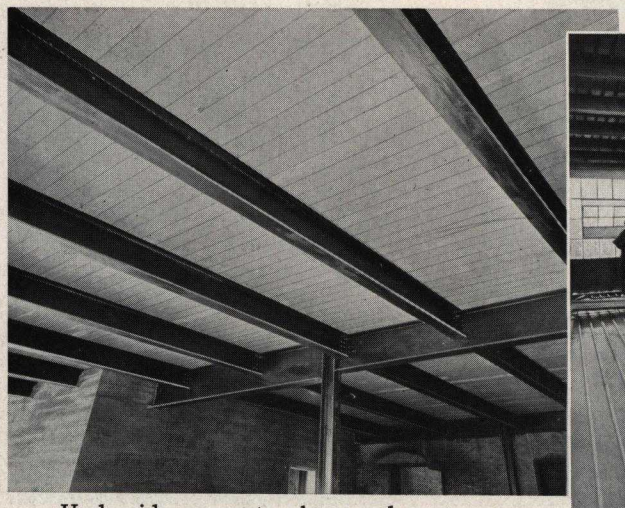
FERROBORD FOR HEAVY DUTY FLOORS

In many buildings where heavy duty concrete floors are to be installed and where it is not intended to install ceilings, Truscon Ferrobord sheets are ideal as a concrete form and provide advantages over ordinary construction.

Ferrobord sheets are inverted and welded to the purlins or structural supports. All form work, necessary for the pouring of concrete is eliminated. The bottom of this type of construction presents, to the floor below, a smooth and even appearance. This surface can be cleaned easily, quickly and economically. Prevents a constant dropping of concrete dust, due to vibration on floors.

Ferrobord sheets are not intended as a reinforcement but only as a form for the concrete and as a ceiling finish. Tests have proved that this type of construction will carry six inches of wet concrete on a span of 4′-0″ without noticeable deflection.

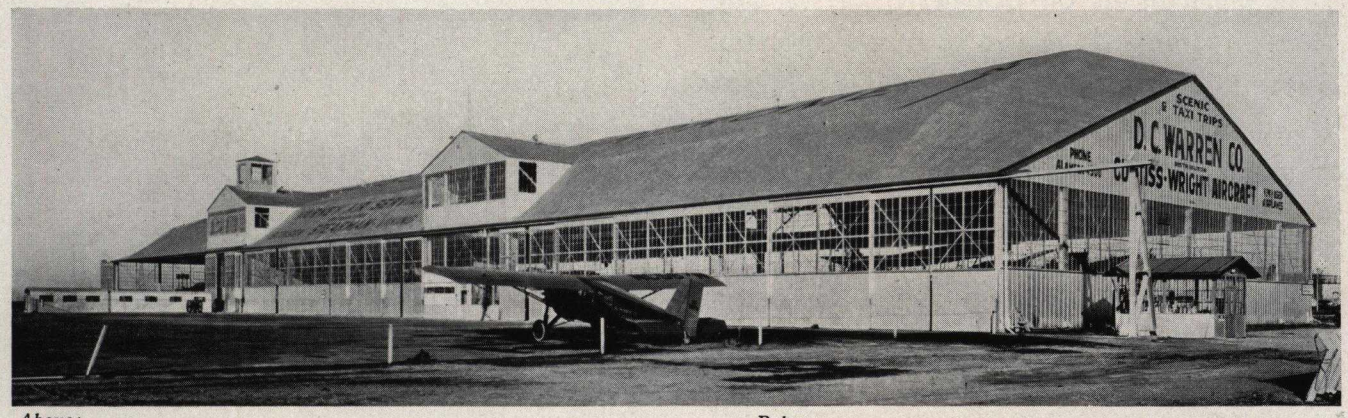




Underside presents clean and neat appearance.

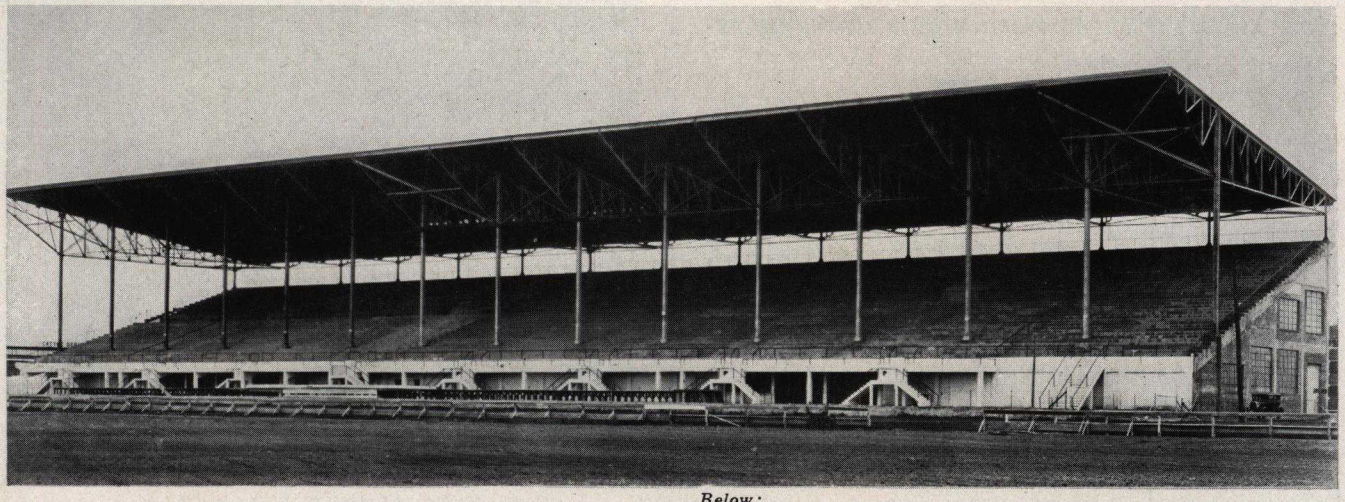
Concrete is quickly and easily poured.

FERROBORD ROOFS



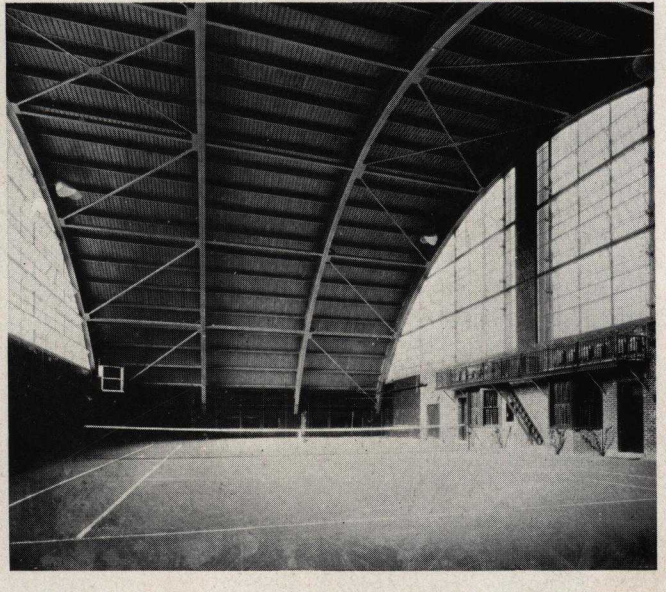
Above:
SAN FRANCISCO BAY AIRDROME, ALAMEDA, CALIF.
L. K. Nishkian, Engineer
Lindgren & Swinerton, Inc., Contractors

Below:
HUTCHINSON GRAND STAND, HUTCHINSON, KANSAS
Chas. D. Cuthbert, Architect
Kansas State Fair Assoc., Contractors



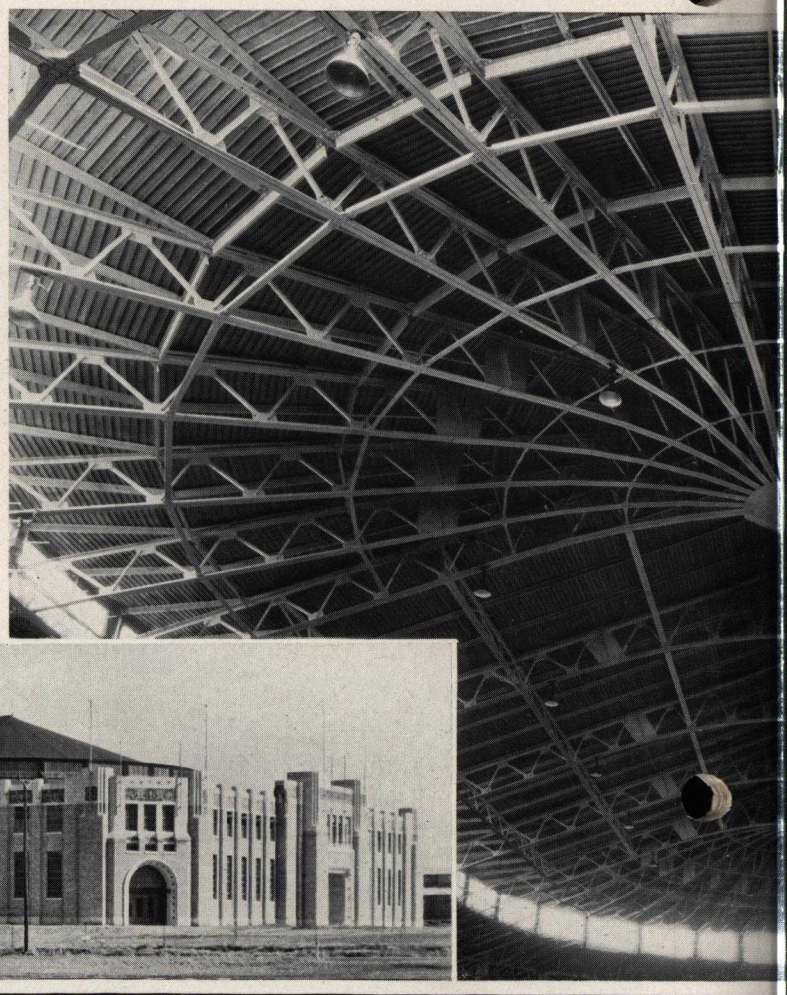
Below:
EPSTEIN PRINTING COMPANY, OMAHA, NEBR.
Leo A. Daly, Architect; John Lof & Son, Contractor

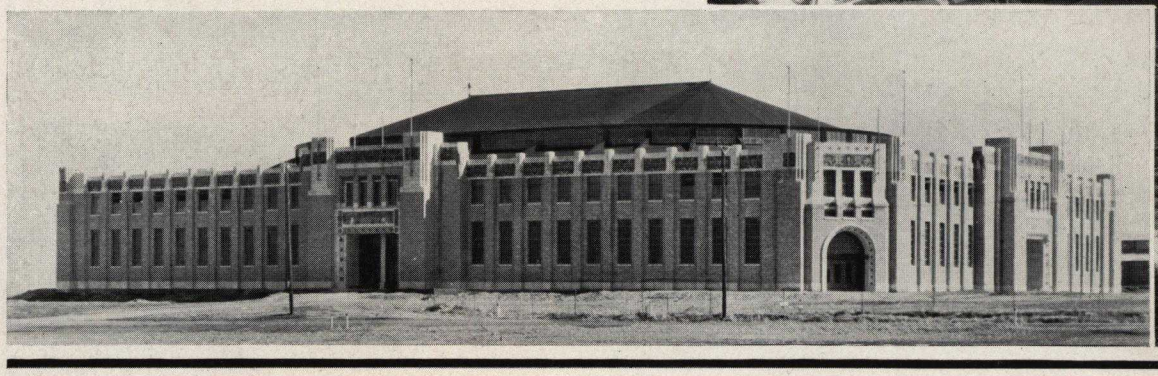
Below:
TRAJECTORY TENNIS COURT BUILDING, BEVERLY, MASS.
J. Hampden Robb, Architect; Gavin Hadden, Engineer
P. J. MacNaughton Co., Inc., Contractors



FERROBORD ROO

THE illustrations on pages 11, 12, 13 and 14 depict the wide range of applications of Truscon Ferrobord Steeldeck. From small grand stand to huge coliseum; from a medium sized printing plant to enormous factories covering thousands of square feet, Truscon Ferrobord has proved its dependability and economy in thousands of installations under every type of construction requirement. The erection data on pages 18 to 23 describes the ease and speed with which this type of roofing can be installed. It assures permanent and fire resistant construction.



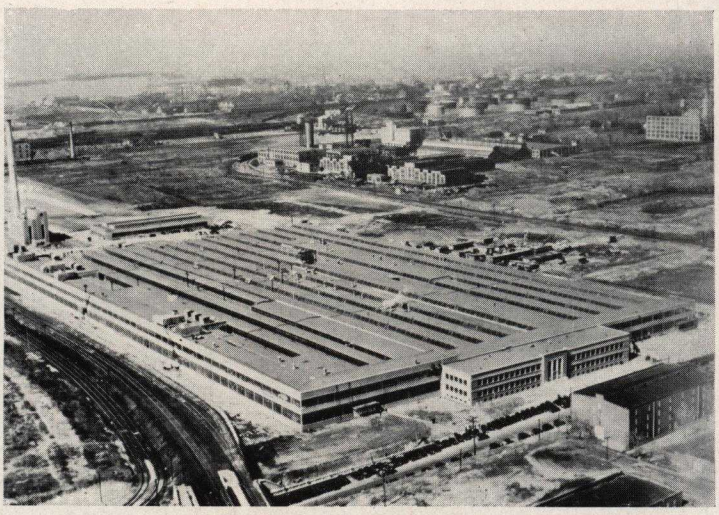


TULSA FAIR COLISEUM, TULSA, OKLA.
L. I. Shumway, Architect; C. M. Pritchard Engr. Co., Engineers
Manhatten Construction Co., Contractors

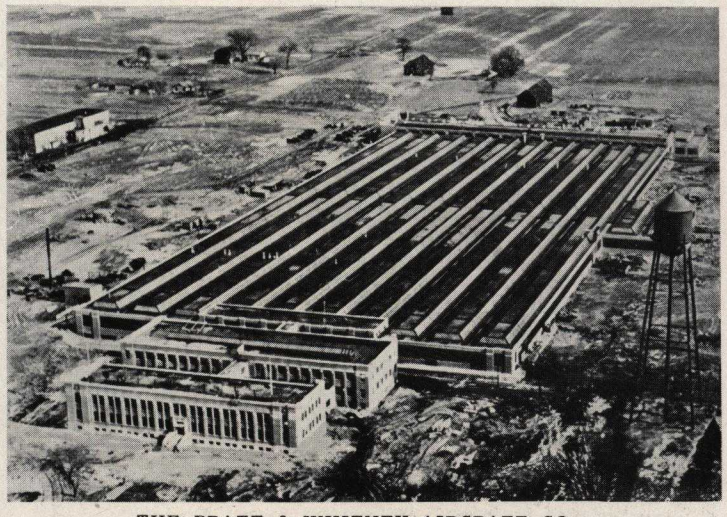
COLISEUM BUILDING, FORT WORTH, TEXAS
Wyatt C. Hedrick and Elmer G. Withers Arch. Co., Inc., Assoc. Architects
Herbert M. Hinckley, Engineer; James T. Taylor, General Contractor

MU PAL
Alonzo H.
Edwin Pfu

F INSTALLATIONS

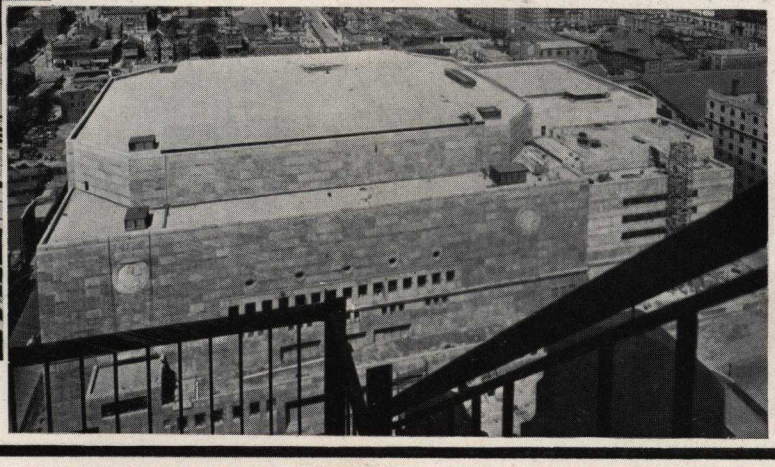


CHEVROLET PARTS BUILDING, LOUISVILLE, KY.
Albert Kahn, Inc., Architects
Struck Construction Co., Contractors

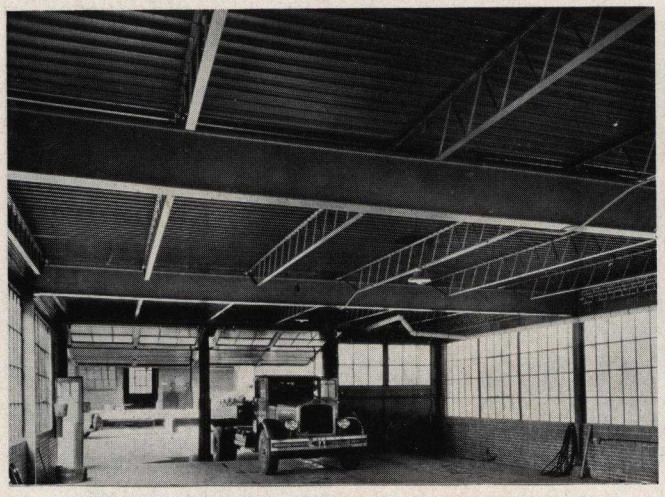


THE PRATT & WHITNEY AIRCRAFT CO.
E. HARTFORD, CONN.
Albert Kahn, Inc., Architects

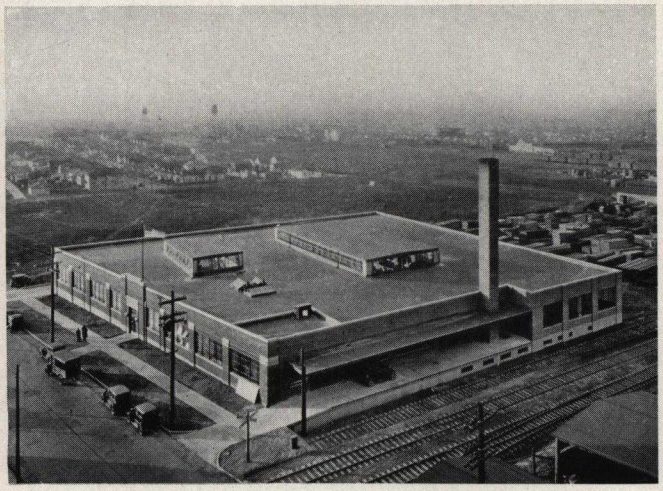
UDIT UM, KANSAS CITY, MO.
entry, Voskamp & Neville, Hoit, Price & Barnes, Associated Archts.
Engineer; Potti-Fliesher-Ring Engr. & Constr. Co., Contractors



FERROBORD ROOFS

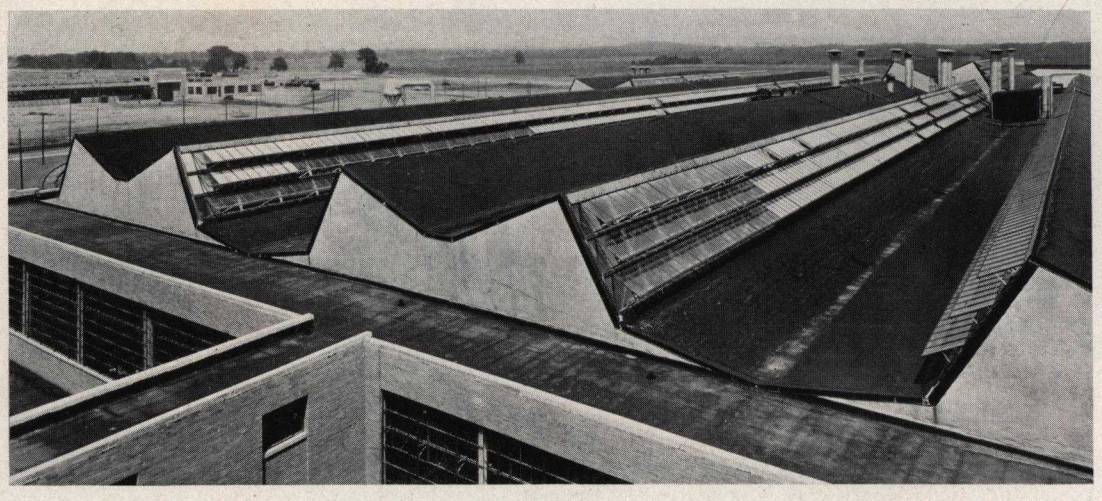


SUN OIL COMPANY, BULK PLANT, ALTOONA, PA.
Sun Oil Co., Architects and Engineers
Hughes Foulkrod, Contractors



CHEVROLET MOTORS CO., BALTIMORE, MD.
General Motors Corporation, Architects
Carlson Company, Contractors

CHANCE-VOUGHT CORPORATION
EAST HARTFORD, CONN.
Albert Kahn, Inc., Architect
R. G. Bent Co., General Contractors



CURTISS FLYING SERVICE HANGAR
GLENVIEW, ILL.
Rebori, Wentworth, Dewey & McCormick, Inc., Architects
Milo R. Lougren Construction Co.
Contractors

WELDING FERROBORD TO STRUCTURAL SUPPORTS

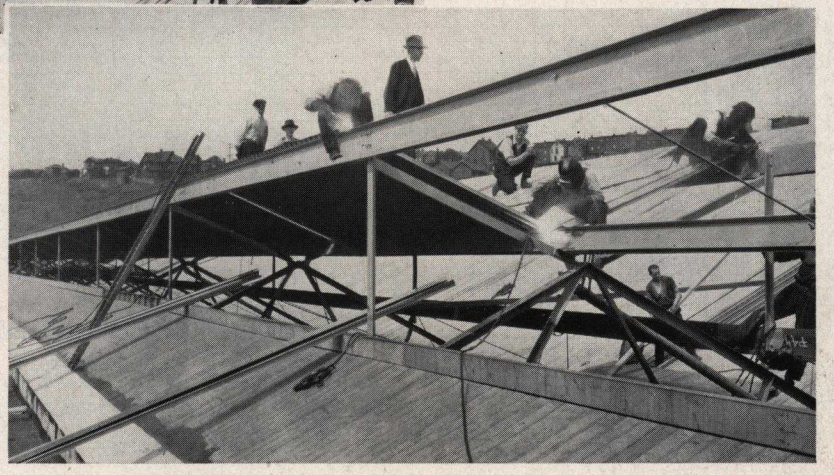
Steeldecks welded to roof supporting members are rapidly becoming the accepted standard for roof construction. This method provides a greater degree of rigidity which materially strengthens the entire roof structure and in addition increases the speed of erection. These two important factors assure a stronger and more economical construction than that obtained through ordinary construction methods.

Truscon Ferrobord is especially adapted for the arc welding process of erection, because the flat bottom flange of the rib presents an extremely easy and simple welding condition. The welding operation is done from above, as illustrated, with each weld in plain view and readily accessible.

The illustrations on this page clearly illustrate the ease with which Truscon Ferrobord is laid and welded to the supporting members.

Welding Ferrobord to roof supporting members.

Ferrobord sheets are rapidly placed ready for welding.



Speed of erection is considerably increased by welding.

INSULATION

The purposes of insulation are—

First—to reduce heat loss through the roof and consequently to save fuel and reduce the investment in heating equipment.

Second—to prevent condensation.

By use of the chart shown below the coal consumption and the amount of radiation required to take care of heat loss through the roof, with various thicknesses of insulation, may be determined.

Along the left-side are given the conductivities of steel deck covered with waterproofing, and various thickness of insulation.

Assume:

Steeldeck with 1/2" insulation and built-up roofing.

Maximum temperature difference—inside and outside —70°.

Average temperature difference—inside and outside during heating season—30°.

TO DETERMINE RADIATION REQUIRED

From point .37 at the left side follow across to the right to the intersection with the line for 70° temperature difference. From the intersection follow down vertically to the bottom line, where the reading will be found to be 104 sq. ft. of radiation per 1000 sq. ft. at roof.

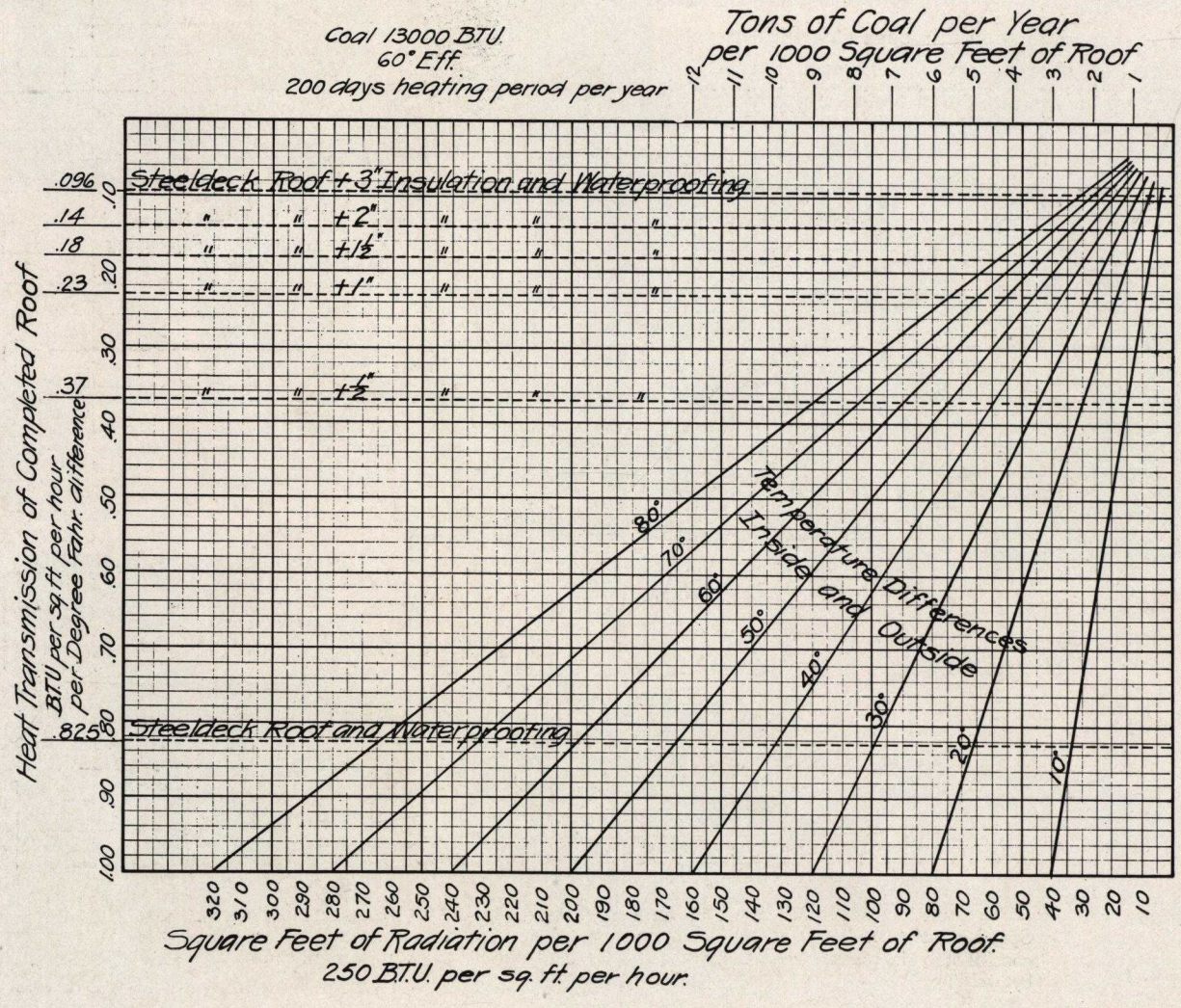
TO DETERMINE COAL REQUIRED

From point .37 at the left side follow across to the right to the intersection with the line for 30° temperature difference. From the intersection read up vertically to the top line, where the reading will be found to be 3 3/8 tons of coal per year per 1000 sq. ft. of roof.

INSULATION THICKNESS

(See table on page 17)

For determining insulation required to prevent condensation by use of the table on page 15 the thickness of insulation required to prevent condensation under various temperature and humidity conditions may be readily determined. Assuming a room temperature at 70°, an outside temperature of 0°, with a relative humidity of 50% it will be found that a 1/2" thickness of insulation will be required.


Coal 13000 B.T.U.
60° Eff.
200 days heating period per year
Tons of Coal per Year per 1000 Square Feet of Roof
12 11 10 9 8 7 6 5 4 3 2 1
Steeldeck Roof + 3" Insulation and Waterproofing
+ 2"
+ 1 1/2"
+ 1"
+ 1/2"
Steeldeck Roof and Waterproofing
.096 .14 .18 .23 .37 .825
.10 .20 .30 .40 .50 .60 .70 .80 .90 1.00
Heat Transmission of Completed Roof
B.T.U. per sq. ft. per hour per Degree Fahr. difference
80° 70° 60° 50° 40° 30° 20° 10°
Temperature Differences Inside and Outside
320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10
Square Feet of Radiation per 1000 Square Feet of Roof.
250 B.T.U. per sq. ft. per hour.

INSULATION THICKNESS (inches) REQUIRED TO PREVENT CONDENSATION

Room Temperature	Outside Temperature	Relative Humidity 40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%
50°	-10°	½"	½"	1 "	1 "	1 "	1½"	1½"	2 "	3 "		
	0°	½	½	1	1	1	1½	1½	2	3		
	5°	½	½	½	1	1	1	1½	2	3	3 "	
	10°	½	½	½	½	1	1	1	1½	2	3	
	15°	½	½	½	½	1	1	1	1½	2	3	
	20°	½	½	½	½	½	1	1	1	1½	2	
	30°	½	½	½	½	½	½	1	1	1	2	3 "
60°	-10°	½"	½"	1 "	1 "	1 "	1 "	1½"	2 "	3 "		
	0°	½	½	½	1	1	1	1½	2	3	3 "	
	5°	½	½	½	1	1	1	1	1½	2	3	
	10°	½	½	½	½	1	1	1	1½	2	3	
	15°	½	½	½	½	½	1	1	1½	2	3	
	20°	½	½	½	½	½	1	1	1	1½	2	
	30°	½	½	½	½	½	½	1	1	1	2	3 "
	40°	½	½	½	½	½	½	½	½	1	1½	3
70°	-10°	½"	½"	1 "	1 "	1 "	1 "	1½"	2 "	3 "		
	0°	½	½	½	1	1	1	1½	2	3	3 "	
	5°	½	½	½	½	1	1	1	1½	2	3	
	10°	½	½	½	½	1	1	1	1½	2	3	
	15°	½	½	½	½	½	1	1	1	1½	3	
	20°	½	½	½	½	½	½	1	1	1½	2	3 "
	30°	½	½	½	½	½	½	½	1	1	2	3
	40°	½	½	½	½	½	½	½	½	1	1	3
80°	-10°	½"	½"	½"	1 "	1 "	1 "	1½"	2 "	3 "		
	0°	½	½	½	½	1	1	1	1½	2	3 "	
	5°	½	½	½	½	1	1	1	1½	2	3	
	10°	½	½	½	½	½	1	1	1½	2	3	
	15°	½	½	½	½	½	1	1	1	1½	3	
	20°	½	½	½	½	½	½	1	1	1½	2	3 "
	30°	½	½	½	½	½	½	½	1	1	2	3
	40°	½	½	½	½	½	½	½	½	1	1	3
90°	-10°	½"	½"	½"	1 "	1 "	1 "	1½"	2 "	3 "		
	0°	½	½	½	½	1	1	1	1½	2	3 "	
	5°	½	½	½	½	½	1	1	1½	2	3	
	10°	½	½	½	½	½	1	1	1	1½	3	
	15°	½	½	½	½	½	½	1	1	1½	2	3 "
	20°	½	½	½	½	½	½	1	1	1	2	3
	30°	½	½	½	½	½	½	½	1	1	1½	3
	40°	½	½	½	½	½	½	½	½	1	1	3

NOTE: Under the conditions prevailing in most industrial plants ½" insulation will be sufficient to prevent condensation. It is suggested however, when deciding on the roof construction, that the additional savings, in heating equipment and fuel, afforded by increased thickness of insulation, be taken into consideration.

TRUSCON FERROBORD ERECTION

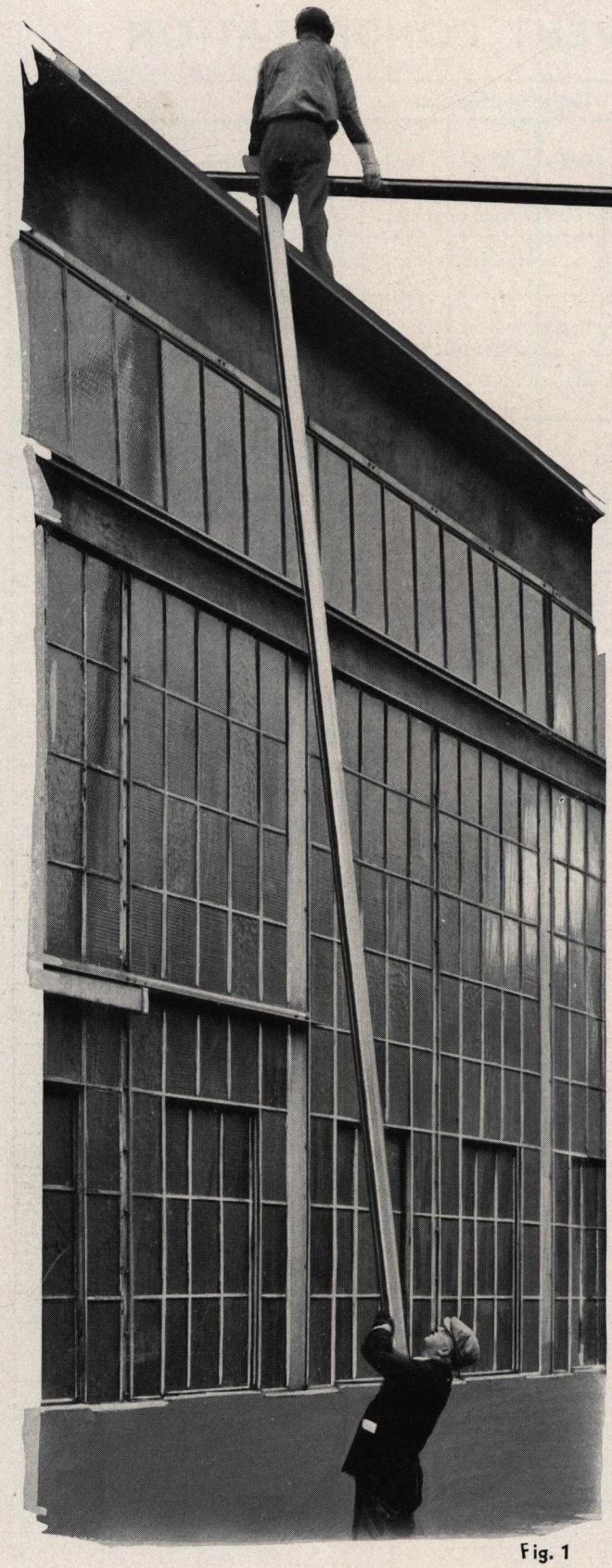


Fig. 1

INSTRUCTIONS FOR ERECTION OF TRUSCON FERROBORD ROOFDECK

Architectural and structural drawings must be furnished us with the contract. From these we prepare working drawings showing the layout of Ferrobord, together with bill of material used in the roofdeck construction. The marking of all Ferrobord is given in the bill of material.

Blueprints of layout, bill of materials, and copy of this bulletin are furnished to the erectors on each contract. Before starting erection the erector should familiarize himself with all units of the roofdeck described in the bill of material given on our drawings. These units are designated on page — of this bulletin.

Fig. 1

HANDLING

Two men can handle and distribute Ferrobord quickly without physical effort. Although of rigid construction, ordinary care and precaution must be taken in the handling of Ferrobord to prevent damage.

TRUSCON FERROBORD ERECTION

Fig. 2

MARKINGS

All Ferrobord is distinctly marked in shop on under side and in accordance with markings given in bill of materials on our drawings.

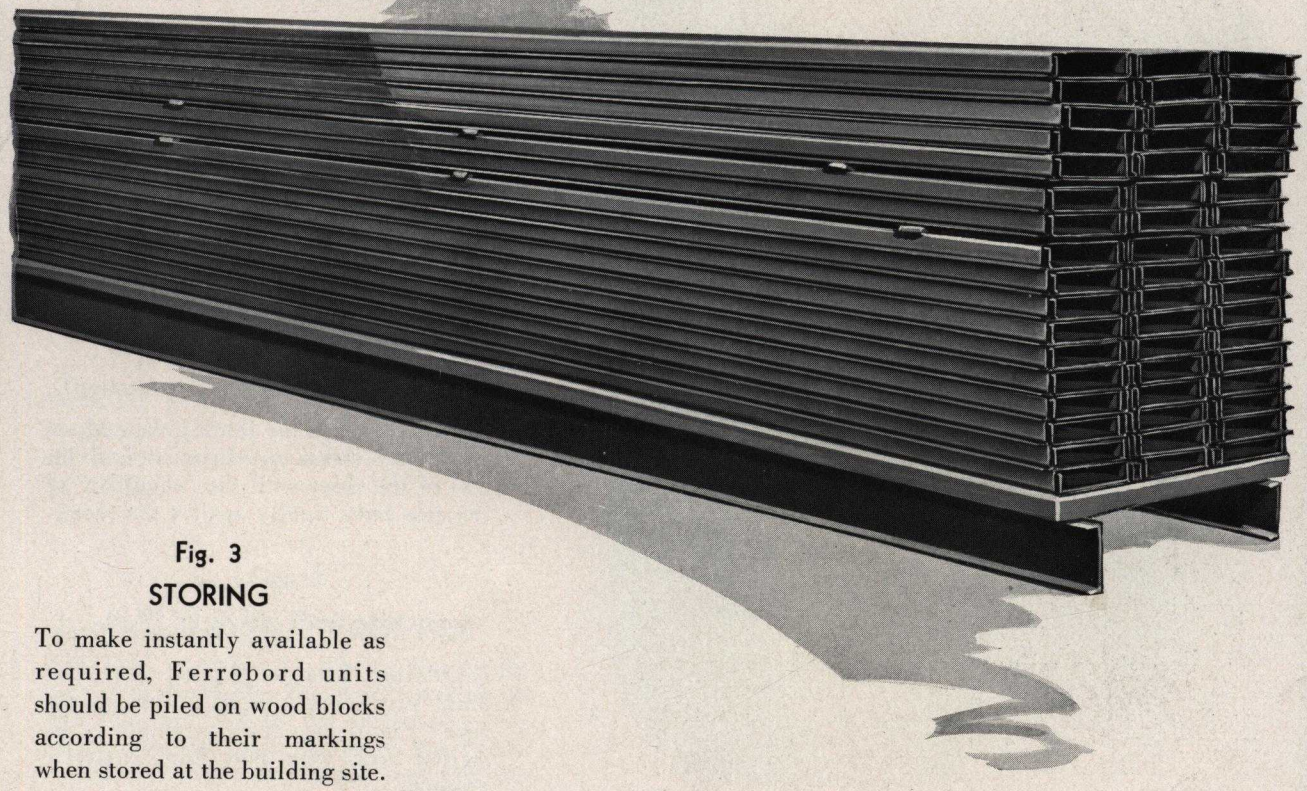


Fig. 3

STORING

To make instantly available as required, Ferrobord units should be piled on wood blocks according to their markings when stored at the building site.

TRUSCON FERROBORD ERECTION

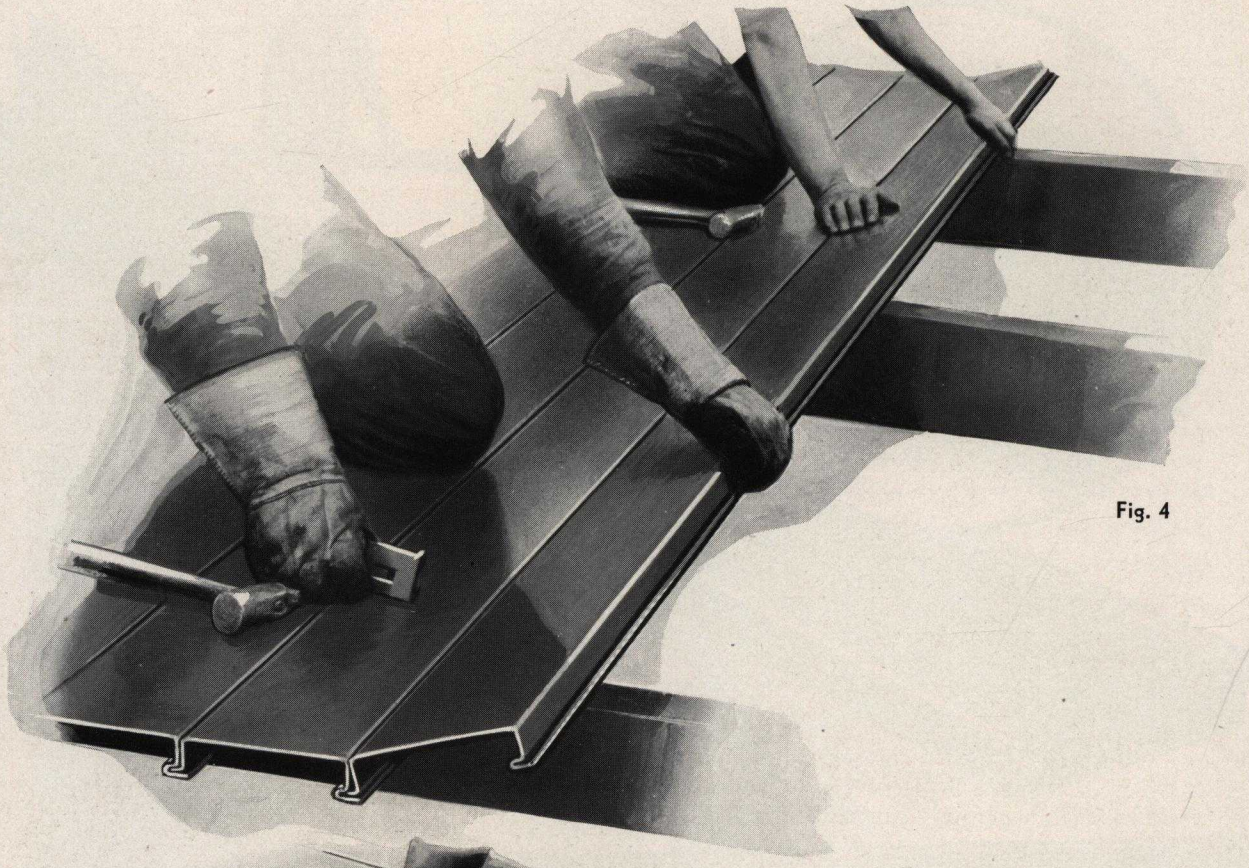


Fig. 4

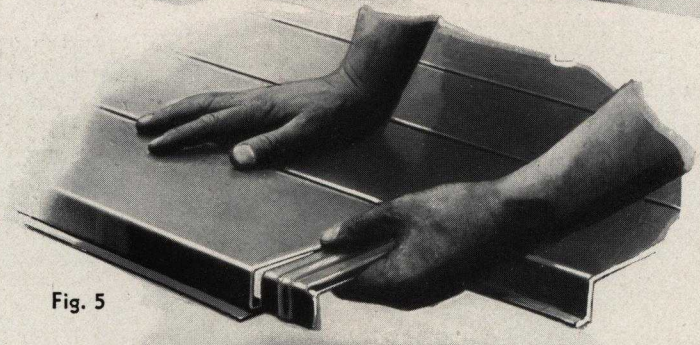


Fig. 5

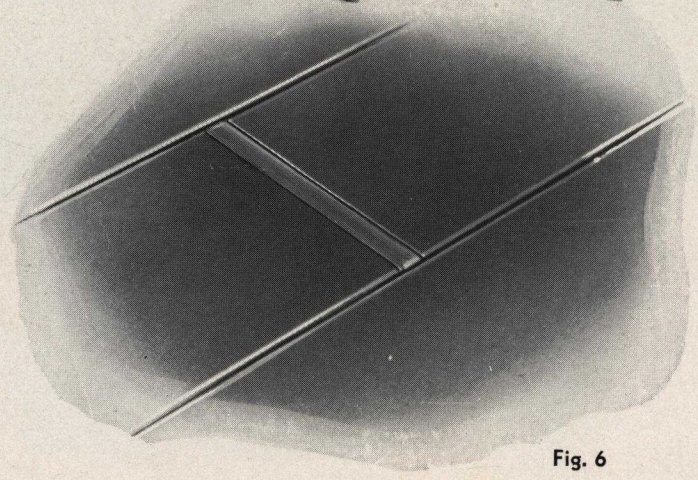


Fig. 6

Fig. 4
LAYING DECK

In the erection of the deck, successive sheets are laid as shown in Figure 4, the interlocking ribs being securely fastened to the purlins by means of purlin clips.

Fig. 5
BUTT JOINT CLIPS (1st operation)

Butt Joint Clips for joining the ends of Ferrobord sheets are inserted into the end of the sheet until the "shoulder" of the clip butts tightly against the sheet.

Fig. 6
BUTT JOINT CLIPS (2nd operation)

Adjoining sheet is slipped into Butt Joint producing a rigid unbroken surface. Fig. 6 also shows completely installed deck with butt joint correctly applied.

TRUSCON FERROBORD ERECTION

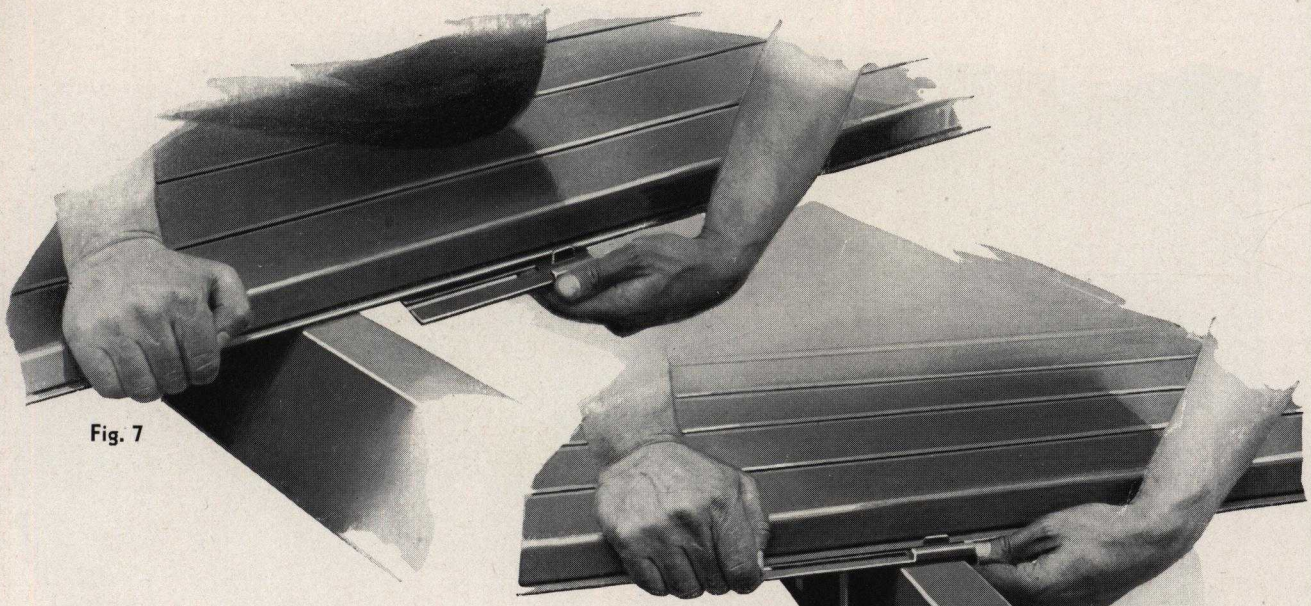


Fig. 7

Fig. 8

Fig. 7
PURLIN CLIPS (1st operation)

Purlin Clips are attached every 6″ across the deck *i. e.* on every interlocking rib. The outside lug of the purlin clip is engaged with the double flanged edge of the sheet from the under side of the rib.

Fig. 8
PURLIN CLIPS (2nd operation)

The purlin clip thus engaged is pushed toward the purlin flange until the lower lip of the clip clamps rigidly on the flange.

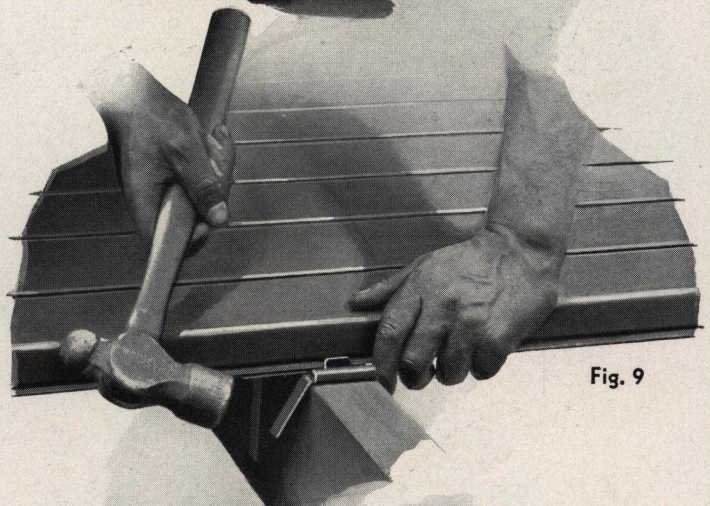


Fig. 9

Fig. 9
PURLIN CLIPS (3rd operation)

With the purlin clip in this position the outstanding leg is driven down the back of the roof purlin, thus fastening it firmly in place.

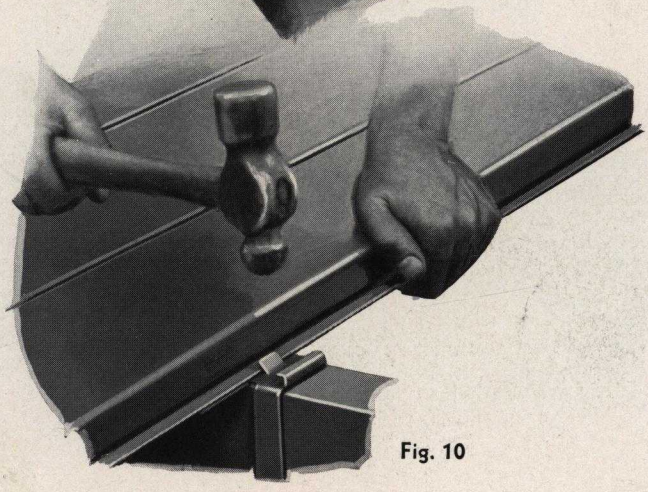


Fig. 10

Fig. 10
PURLIN CLIPS (final operation)

The final operation in placing the purlin clip is to clinch the Ferrobord securely to the clip by driving the upstanding lug down over the lower flange of the Ferrobord. The clip does not interfere with the laying of the next sheet.

TRUSCON FERROBORD ERECTION

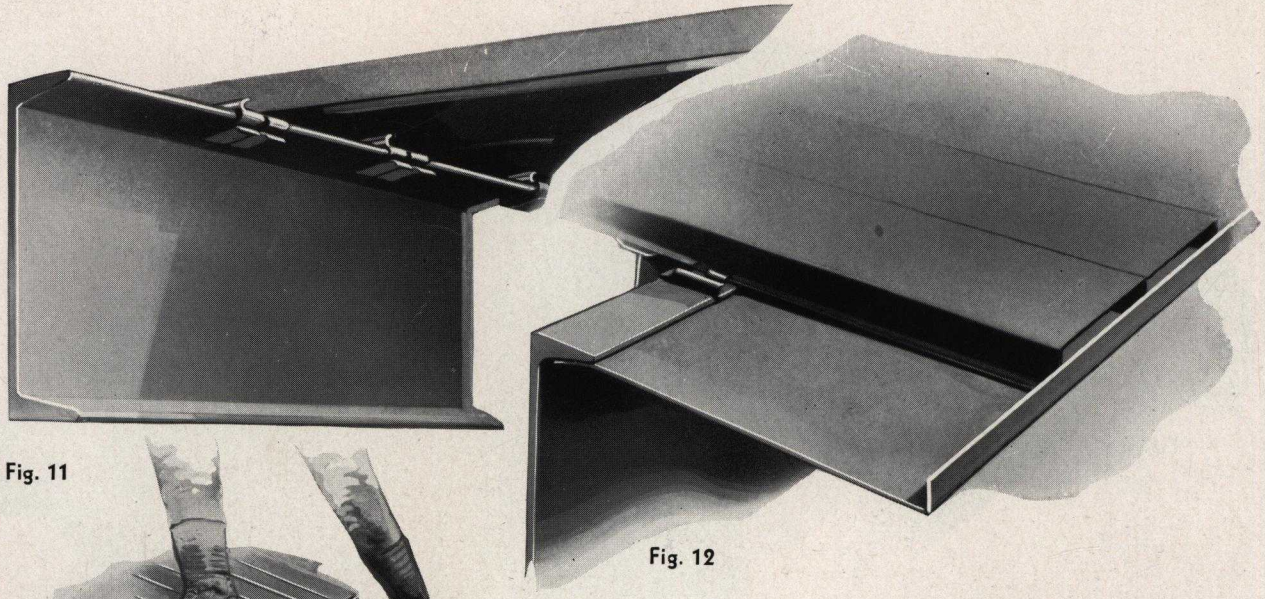


Fig. 11

Fig. 12

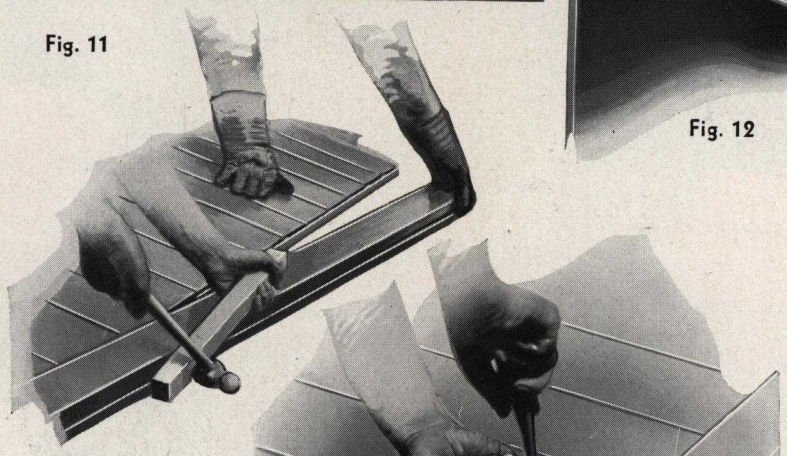


Fig. 13

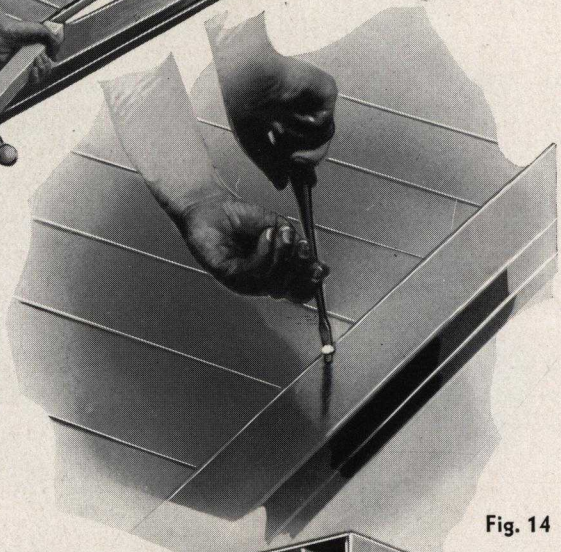


Fig. 14

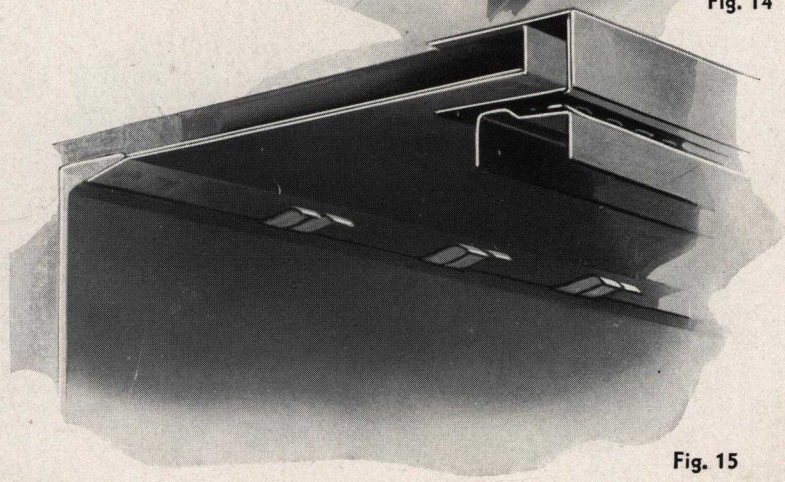


Fig. 15

Fig. 11
EAVE PURLIN CLIP

Application of the eave purlin clips at the eave overhang, similar to plate purlin clip. Prongs on the under side of clip are formed to hold the eave closing plate firmly in place.

Fig. 12
CLOSING PLATE

Eave closing plate firmly driven in eave purlin clips and ready to receive cornice and nailer bead.

Fig. 13-14
CORNICE AND NAILER BEAD

The Cornice and Nailer Bead is driven over the Ferrobord and the Closing Plate at all eave and gable overhangs and secured by metal screws (No. 14 x ¾″) at 2′-0″ o. c. The screws are started in holes made with an ordinary cold punch.

Fig. 15
COMPLETE EAVE OVERHANG

Closing plate and cornice and nailer bead erected in place forming a rigid overhang.

TRUSCON FERROBORD ERECTION

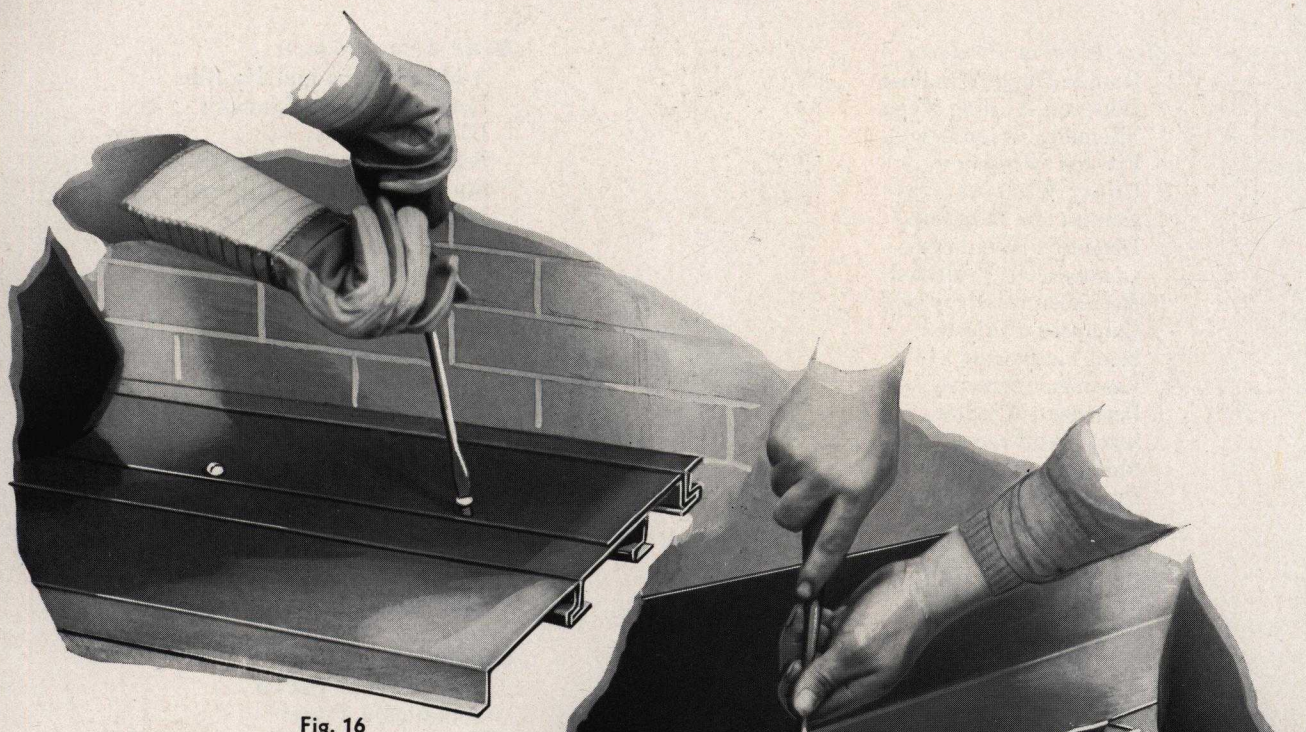


Fig. 16

Fig. 17

Fig. 18

Fig. 16
FILLER SHEET

Spaces less than 6″ between deck and parapet or similar wall are filled with a Filler Sheet and Tee Section. Filler Sheet lays over the last standard sheet and is firmly held to it by metal screws, 2′-0″ o. c.

Fig. 17
BACKING PLATE (1st operation)

Backing Plates are placed along the wall of adjoining buildings, pent houses, and along all parapet walls. They are screwed to the Ferrobord with No. 14 x ¾″ metal screws at 2′-0″ o. c.

Fig. 18
BACKING PLATE (2nd operation)

Backing plates are nailed to masonry walls with masonry nails at 1′-0″ o. c.

Products Manufactured by Truscon

Steel Window Products
- Double-Hung Windows
- Donovan Awning Type
- Silentaire Windows
- Pivoted Windows
- Utility Windows
- Continuous Windows
- Detention Windows
- Commercial Projected
- Architectural Projected
- Casement Projected
- Steel Casements
- Casement Screens
- Basement Windows
- Steel Sub-Frames
- Mechanical Operators
- Pressed Steel Lintels
- Coal Chute Doors

Window Muffler
- Silentaire
  - Mechanical
  - Non-Mechanical

Steel Doors
- Swing and Slide
- Bifold
- Canopy Type
- Overdoor
- Accordion Type
- Vertical Lift
- Morgan Canopy Door
- Vertical Lift-Swing
- Telescoping Canopy
- Original "Kanopy" Type
- Airplane Hangar

Floor Systems
- I-Grid Floors
- Teegrid Bridge Floors
- Unigrid Floors
- Channelplate Construction
- Steel Paving Blocks
- Presto Floors
- Plategrid Gratings
- Floorgrid Reinforcing

Steeldeck Roofs (Insulated)
- Ferrodeck
- Ferrobord
- Ferroplate

Steel Joists
- Open Truss Joists
- Plate Girder Joists
- Nailer Joists
- Clerespan Joists
- Accessories

Metal Lath Products
- A-Metal Laths and Hy-Ribs
- Herringbone Doublemesh
- Diamond Laths
- Self-Sentering and Trussit
- Stucco Steel and Strip-ite
- Metal Plasterbord
- Insulmesh
- Corner Beads and Cornerite
- Channels and Studs
- Mortar Boxes
- Metal Trim

Reinforcing Steel
- Rib Bars
- Kahn Trussed Bars
- Column Hooping
- Floretyles
- Locktyle
- Bank Vault Reinforcing
- Steel Inserts

Road Reinforcing
- Welded Steel Fabric
- Contraction Plates
- Expansion Joints
- Edge Protectors
- Curb Bars
- Road Forms
- Super Safety Guards
- Traffic Markers

Steel Faced Insulation
- Ferroclad Panels
- Thermoclad Containers
- Armorply

Steel Poles
- Weltrus Type
- H-Frames
- Floodlight Towers
- Pipe Line Supports
- Radio Towers
- Sub-Stations

Pressed and Drawn Steel
- Refrigerators
- Automobile and Truck Frames
- Pressed Steel Parts
- Steel Liner Plates
- Steel Forms
- Safety Tread Steel
- Railroad Crossings
- Skid Platforms
- Foundry Flasks
- Beer Barrels
- Beer Cases
- Milk Bottle Crates
- Beverage Cases

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Philadelphia, Pa., 906 Architects Building
Phoenix, Arizona, 222 Luhrs Building
Pittsburgh, Pa., 2544 Oliver Building
Portland, Oregon, 2139 No. Kerby Avenue
Richmond, Va., 736 Central National Bank Bldg.
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